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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,380	09/05/2003	Scott Roger Finn	138856-1	8527

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GENERAL ELECTRIC COMPANY
GLOBAL RESEARCH
PATENT DOCKET RM. BLDG. K1-4A59
NISKAYUNA, NY 12309

EXAMINER

THOMPSON, CAMIE S

ART UNIT	PAPER NUMBER
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1794

NOTIFICATION DATE	DELIVERY MODE
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10/21/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ldocket@crd.ge.com
rosssr@crd.ge.com
parkskl@crd.ge.com

Office Action Summary	Application No. 10/656,380	Applicant(s) FINN ET AL.	
	Examiner Camie S. Thompson	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed July 14, 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-26 is/are pending in the application.
 4a) Of the above claim(s) 18-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12, 13, 16, 17 and 23-25 is/are rejected.
- 7) ☒ Claim(s) 14, 15 and 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's amendment and accompanying remarks filed July 14, 2008 are acknowledged.
2. Examiner acknowledges amended claims 12-13.
3. Examiner acknowledges newly added claims 23-26.
4. Examiner acknowledges withdrawn claims 18-22.
5. Examiner acknowledges cancelled claim 11.
6. The rejection of claims 1-10 and 12-17 under 35 U.S.C. 103(a) as being unpatentable over EP 0526057 is withdrawn due to applicant's argument.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-10, 12-13, 16-17 and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuklinski, U.S. Patent Number 5,934,609 in view of EP 0526057.

Kuklinski discloses a propeller blade fabricated from composite material having a plurality of upper layers having fibers oriented in a first direction and a plurality of lower layers having fibers oriented in a second direction (see abstract and Figure 5). Additionally, the reference

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discloses that the upper and lower layers are joined together by a resistive heating material.

Figure 3 discloses that the first direction is 45 degrees relative to the spanwise direction the blade as per instant claim 12. Additionally, figure 3 shows that the second direction is parallel to the spanwise direction of the fan blade as per instant claim 13 (see also column 3, lines 29-48). It is also disclosed in column 3 that the fibers used in the first and second layers are fabricated from carbon or graphite. It is disclosed in column 4, lines 1-12 that the first and second layers are staggered. Figure 3 discloses that the plurality of layers are layered from an outside surface to an inside surface of the blade as per instant claims 6-10. Figure 3 also shows that the first and second layers are positioned at a leading edge of the blade as per instant claims 16-17. Figure 5 shows that the material joining the first and second layers consists of a plurality of layers as per instant claim 23. Kuklinksi does not disclose that the first and second layers are joined at a joint. The European reference discloses a composite blade that comprises a plurality of first thin successive layers of a first composite material. The reference also discloses a plurality of second successive layers of a second composite material. Additionally, the reference discloses a joining material for joining the first thin layers to each other and the second thin layers at a joint. It is disclosed in column 3 of the reference that graphite fibers are used as the joining material. Joining the first and second layers at a joint affects the shear load of the blade. Therefore, it would have been obvious to one of ordinary skill in the art to have the first and second layers of the Kuklinksi reference be joined at a joint in order to have a fan blade that handles high shear loads.

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Allowable Subject Matter

9. Claims 14-15 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art does not provide for the recited fan blade further including a third composite strip having fiber oriented in a third direction different from the orientation of the fibers of the first and second fiber composite strips. The closest prior art, Kuklinksi, U.S. Patent Number 5,934,609, fails to teach or suggest a third fiber reinforced composite strip having a plurality of layers wherein the third composite strip is oriented in a different direction than that of the first and second fiber reinforced composite strips.

Response to Arguments

10. Applicant's arguments with respect to the present claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Camie S. Thompson whose telephone number is (571) 272-1530. The examiner can normally be reached on Monday through Friday from 7:30 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, D.

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Lawrence Tarazano, can be reached at (571) 272-1515. The fax phone number for the Group is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. Lawrence Tarazano/
Supervisory Patent Examiner, Art Unit 1794